INITIAL REGULATORY FLEXIBILITY ANALYSIS CHAPTER 11

The Regulatory Flexibility Act (RFA) requires Federal rulemakers to examine the impacts of proposed and existing rules on small businesses, small organizations, and small governmental jurisdictions. The RFA requires that agencies develop an Initial Regulatory Flexibility Analysis (IRFA) and a Final Regulatory Flexibility Analysis (FRFA). These analyses evaluate the impact that the regulatory alternatives under consideration would have on small entities and examine ways to minimize these impacts. Although the RFA does not require that the alternative with the least impact on small entities be selected, it does require that the expected impacts be adequately characterized.

The following sections review several components of the IRFA:

- Section 11.1 discusses the objectives and legal basis of the proposed regulatory changes;
- Section 11.2 describes the alternatives to the proposed rule that would reduce the impact on small entities;
- Section 11.3 details the small entities potentially affected;
- Section 11.4 considers the impacts of the proposed rules on small entities; and
- Section 11.5 identifies rules that may duplicate, overlap, or conflict with the proposed rule.

11.1 OBJECTIVES AND LEGAL BASIS OF PROPOSED RULES

The purpose of the proposed revisions to the Atlantic Large Whale Take Reduction Plan (ALWTRP) is to provide for the conservation and protection of Atlantic large whales -- North Atlantic right whales (*Eubalaena glacialis*), North Atlantic humpback whales (*Megaptera novaeangliae*), and fin whales (*Balaenoptera physalus*) -- thereby fulfilling the obligations of the National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). The need for the proposed revisions is demonstrated

by the continuing risk of serious injury and mortality of Atlantic large whales due to entanglement in commercial fishing gear.

The MMPA of 1972 provides protection for species or stocks that are, or may be, in danger of extinction or depletion as a result of man's activities. The MMPA states that measures should be taken immediately to replenish the population of any marine mammal species or stock that has diminished below its optimum sustainable level. With respect to any stock or species, the "optimum sustainable population" is the number of animals that will result in the maximum productivity of the stock or species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.

Under the MMPA, the Secretary of Commerce is responsible for the conservation and management of pinnipeds (other than walruses) and cetaceans (aquatic mammals, including whales). The Secretary of Commerce has delegated MMPA authority to NMFS.

In 1994, Congress amended the MMPA, establishing new provisions to govern the taking of marine mammals incidental to commercial fishing operations.[1] These new provisions include the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction, and development and implementation of take reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries.

Take reduction plans are required for all "strategic stocks." Under the MMPA, a "strategic stock" is a stock: (1) for which the level of direct human-caused mortality exceeds the Potential Biological Removal (PBR) level; (2) that is declining and is likely to be listed under the Endangered Species Act (ESA) in the foreseeable future; or (3) that is listed as a threatened or endangered species under the ESA or as a depleted species under the MMPA.[2] The immediate goal of a take reduction plan is to reduce, within six months of its implementation, the mortality and serious injury of strategic stocks incidentally taken in the course of U.S. commercial fishing operations to below the PBR levels established for such stocks. The long-term goal of a take reduction plan is to reduce, within five years of its implementation, the incidental mortality and serious injury of strategic marine mammals taken in the course of commercial fishing operations to insignificant levels approaching a zero mortality and serious injury rate, taking into account the economics of the fishery, the availability of existing technology, and existing state or regional fishery management plans.

Right whales, humpback whales, and fin whales are listed as endangered species under the ESA, and are thus considered strategic stocks under the MMPA. In response to its obligations under the MMPA, NMFS established the Atlantic Large Whale Take Reduction Team (ALWTRT) in 1996 to develop a plan for reducing the incidental take of large whales in

[1] As defined in the MMPA, the term "take" means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.

[2] The Potential Biological Removal (PBR) level is defined in the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock annually while allowing that stock to reach or maintain its optimum sustainable population. The parameters for calculating the PBR level are described in the MMPA.

commercial fisheries along the Atlantic Coast. The ALWTRT consists of representatives from the fishing industry, state and Federal resource management agencies, the scientific community, and conservation organizations. The purpose of the ALWTRT is to provide guidance to NMFS in developing and amending the Atlantic Large Whale Take Reduction Plan to meet the goals of the MMPA with respect to Atlantic large whales.

In addition, the Endangered Species Act (ESA) provides for the conservation of species that are in danger of extinction throughout all or a significant portion of their range and the conservation of the ecosystems on which they depend.[3] The right whale, humpback whale, and fin whale species are all federally listed as endangered and are therefore subject to protection under the ESA.

Section 7 of the ESA directs all Federal agencies to use their existing authorities to conserve threatened and endangered species and to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. When a proposed Federal action may affect an ESA-listed marine species, Section 7 directs that the "Action agency" consult with the Secretary of Commerce; this is referred to as a Section 7 consultation.[4,5]

To assess impacts on large whale and sea turtle species protected under the ESA, NMFS has prepared Biological Opinions for the continued authorization of Federal fisheries under the Fishery Management Plans for the multi-species, spiny dogfish, and monkfish fisheries, and under Federal regulations for the lobster fishery, amongst others. Section 7 consultations were first initiated for each of these fisheries either at the time that the Fishery Management Plan was created to manage the fishery or, in the case of lobster, at the time of a significant amendment (Amendment 5) to the Federal Lobster Management Plan. The Northeast multi-species fishery has a long consultation history, including formal and informal Section 7 consultations, beginning with a formal consultation initiated on June 12, 1986. Formal consultation was first initiated for spiny dogfish on August 13, 1999; for monkfish on December 21, 1998; and for lobster on March 23, 1994.[6] Subsequent ESA Section 7 consultations on those fisheries incorporated the Atlantic Large Whale Take Reduction Plan (ALWTRP) as a Reasonable and Prudent Alternative to avoid jeopardy to right whales. NMFS reinitiated consultation on May 4, 2000, for the multi-species, spiny dogfish and monkfish gillnet fisheries, and on June 22, 2000, for the lobster fishery, following new whale entanglements resulting in serious injuries to right whales, at least

[3] "Species," as defined by the Act, includes any subspecies of fish, wildlife, or plant and any distinct population segment of any vertebrate species which interbreeds when mature.

[4] The "Action agency" is the Federal agency charged with permitting, conducting, or funding the proposed activity serving as the basis for the consultation.

[5] Federal agencies must consult with the Secretary of the Interior when a proposed action may affect an ESA-listed species under the Department of Interior's purview.

[6] The spiny dogfish and monkfish species were subject to Section 7 consultation as part of the multi-species fishery until managed under their own management plans in 1999. The lobster fishery was first considered in a formal consultation on the effects of all fisheries (including the lobster fishery in Federal waters) on threatened and endangered species conducted for the implementation of the Marine Mammal Exemption Program in 1988.

one right whale mortality in gillnet gear, new information indicating a declining status for western North Atlantic right whales, and revisions to the ALWTRP.

The Biological Opinions from the May/June 2000 Section 7 consultations, finalized June 14, 2001, found that NMFS' administration of Federal fisheries, as modified by the ALWTRP requirements in effect at that time, was likely to jeopardize the continued existence of the western North Atlantic right whale.[7] The Biological Opinions identified a set of Reasonable and Prudent Alternatives designed to avoid the likelihood of jeopardy to right whales. These measures included:

- Seasonal Area Management (SAM);
- Dynamic Area Management (DAM);
- An expansion of gillnet gear modification requirements and restrictions to Mid-Atlantic waters and modification of fishing practices in Southeastern waters;
- Continued gear research and modifications; and
- Additional measures that implement and monitor effectiveness of the Reasonable and Prudent Alternatives.

These measures were intended, in combination, to reduce the risk of serious injury and mortality to large whales from entanglements in commercial fishing gear and minimize adverse impacts if entanglements occur.

11.2 ALTERNATIVES CONSIDERED AND PREFERRED ALTERNATIVES

11.2.1 Current ALWTRP Requirements

The ALWTRP seeks to reduce the risk of serious injury to or mortality of large whales due to accidental entanglement in U.S. commercial fishing gear. The Plan consists of restrictions on where and how gear can be set; research into whale populations, whale behavior, and fishing gear; outreach to inform fishermen of the entanglement problem and to seek their help in understanding and solving the problem; and a program to disentangle whales that do get caught in gear. The fisheries currently regulated under the ALWTRP include the Northeast anchored float gillnet fishery; the Northeast/Mid-Atlantic American lobster trap/pot fishery; the Northeast sink gillnet fishery; the Southeast Atlantic gillnet fishery; the Southeastern U.S. Atlantic shark gillnet fishery; and the U.S. Mid-Atlantic coastal gillnet fishery.

[7] The June 14 Biological Opinions also concluded that the fisheries were not likely to destroy or adversely modify habitat critical to right whales or to jeopardize the continued existence of other endangered species.

The ALWTRP includes a variety of gear modification requirements and restrictions, a Seasonal Area Management (SAM) program, and a Dynamic Area Management (DAM) program. The universal gear modification requirements apply to all lobster traps/pots and gillnets and include restrictions on floating line at the surface; restrictions on wet storage of gear; and voluntary restrictions on knots in buoy lines. Other gear restrictions are area- and season-specific, addressing sensitive times and locations where entanglement risk is greatest.

The SAM program was established by NMFS to protect predictable annual aggregations of North Atlantic right whales in the waters off Cape Cod and out to the boundary of the Exclusive Economic Zone (EEZ), as observed in aerial surveys from 1999 to 2001, from entanglement in lobster trap/pot and gillnet gear. The SAM program incorporates two zones: SAM West, which is in effect from March 1 through April 30, and SAM East, which is in effect from May 1 through July 31. Gear set in the SAM zones during the designated times must be low risk gear. The ALWTRT defines low risk gear as gear that is *highly unlikely* to cause death or serious injury to entangled whales.

Under the DAM program, NMFS can temporarily restrict the use of lobster trap/pot and gillnet fishing gear within defined areas north of 40°00' N latitude to protect right whales. A DAM action is triggered by a single reliable report of an aggregation of three or more right whales within an area (75 square nautical miles) such that the whale density is equal to or greater than 0.04 right whales per square nautical mile. NMFS establishes a buffer zone around the whale aggregation and determines whether to impose temporary restrictions on fishing and/or fishing gear in the zone. Possible restrictions include removal of trap/pot and gillnet gear; modification of gear in order to continue fishing in the DAM zone; and voluntary removal of gear and cessation of fishing.

11.2.2 Alternatives Considered

NMFS is considering various alternatives for modifying existing ALWTRP requirements, with the intent of identifying only one alternative in the FEIS. The alternatives under consideration seek to reduce large whale entanglement by including other trap/pot fisheries under the ALWTRP; reducing the profile of groundlines; and mandating gear modifications to vertical lines, for example, by requiring gear marking and the use of weak links of lower breaking strength. These changes are designed to address ongoing right, humpback, and fin whale entanglements resulting in serious injury or mortality.

Chapter 3 of this EIS reviews the regulatory alternatives in detail. The essential aspects of the six alternatives can be summarized as follows:

- **Alternative 1 (No Action)**: Under Alternative 1, NMFS would continue with the status quo, i.e., the baseline set of ALWTRP requirements currently in place.

- **Alternative 2**: Regulatory changes common to all fisheries would include weak links on all flotation or weighted devices attached to buoy lines; by 2008, all groundline associated with trap/pot or gillnet gear (excluding

shark gillnets) would need to be sinking and/or neutrally buoyant line; and both seasonal area management (SAM) requirements and dynamic area management (DAM) requirements would be eliminated in 2008. Several new trap/pot fisheries would be brought under the Plan (including fisheries for black sea bass, scup, conch/whelk, shrimp, red crab, hagfish, and Jonah crab) and would have requirements similar to the current and proposed requirements for the lobster trap/pot fishery. In addition, Alternative 2 would extend ALWTRP requirements to the Northeast driftnet fishery, imposing regulations similar to those that apply to the Mid-Atlantic driftnet fishery. Alternative 2 would also extend ALWTRP requirements to the Northeast anchored float gillnet fishery, imposing requirements similar to those that apply to other components of the Northeast anchored gillnet fishery. Finally, a variety of new requirements would apply to specific fisheries and/or specific areas. All of these requirements are summarized in Exhibit 11-1. Alternative 2 would also introduce a revised set of gear marking requirements for all fisheries, establish exempted areas where ALWTRP requirements would not apply, and introduce a variety of regulatory language changes.

- **Alternative 3 (Preferred)**: Alternative 3 would entail the same requirements as Alternative 2, but would impose these requirements on a seasonal rather than year-round basis for fisheries in the mid- and South Atlantic.

- **Alternative 4**: Alternative 4 would entail the same requirements as Alternative 2, but would impose these requirements on a seasonal rather than year-round basis for fisheries in the South Atlantic.

- **Alternative 5**: Alternative 5 would modify or expand the provisions of the existing seasonal area management (SAM) program. It would expand the SAM East and SAM West zones; require the upper two-thirds of buoy lines in SAM waters to be made of sinking and/or neutrally buoyant line; and allow two buoy lines for all trawls in SAM waters. It would also include the weak link requirements described under Alternative 2, applying them year-round in northern waters and seasonally in other waters. Finally, Alternative 5 would also bring the new fisheries addressed by Alternatives 2 through 4 under the ALWTRP; incorporate the same gear marking requirements, exempted areas, and regulatory language changes; and eliminate the DAM program. This alternative would not expand broad-based requirements coastwide, such as the sinking and/or neutrally buoyant groundline requirements for trap/pot and gillnet gear; the five or more weak links per net panel, depending on panel size, and anchoring requirements for gillnet gear in the Northeast; and the five or more weak links per net panel requirement for gillnet gear in the Mid-Atlantic. Also, the Northern Inshore Lobster Take Reduction Technology List would not be eliminated.

Exhibit 11-1
PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6
(Requirements in Addition to Current ALWTRP Requirements) [1]

Fishery/Region	Component	Alternative 2	Alternative 3 (Preferred)	Alternative 4	Alternative 5	Alternative 6 (Preferred)
Lobster – Northern Inshore and Nearshore Waters; Stellwagen Bank/Jeffrey's Ledge Restricted Area; and Cape Cod Bay Restricted Area (5/16 – 12/31)[2]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • Eliminates existing take reduction technology list; 600-lb weak links on all flotation devices or devices attached to buoy line; applies only to Northern Inshore lobster waters and state portion of Cape Cod Bay Restricted Area (May 16 to December 31)	= Alt. 2	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008 and early elimination of DAM
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
	Other	• Trawls of four or fewer traps allowed only one buoy line; applies only to Northern Nearshore lobster waters, Stellwagen Bank/Jeffrey's Ledge Restricted Area, and Federal portions of Cape Cod Bay Restricted Area (May 16 to December 31) • SAM/DAM eliminated in 2008				
Lobster – Offshore and Great South Channel Restricted Lobster Area (7/1 – 3/31)[2]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • Buoy line weak link strength of 1,500 lbs for fisheries in Offshore lobster waters and Great South Channel that overlaps LMA 2/3 Overlap and 3 (July 1 to March 31); 600-lb weak links for fisheries in other areas	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008 and early elimination of DAM
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
	Other	• SAM/DAM eliminated in 2008 • Extend southern boundary by following the 100 fa line from 35°30'N to 27°51'N, and then extend out to EEZ				
Lobster – Southern Nearshore[2]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008 and early elimination of DAM
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
	Other	• Apply all requirements to currently unregulated portion of Lobster Management Area 6 that is not included in exempted waters • DAM eliminated in 2008 • Extend southern boundary by following the 100 fa line from 35°30'N to 27°51'N, and then extend inshore to coast or exempted areas; area south of 35°30'N would use the 100 fa line to define Southern Nearshore Lobster Waters				
Black Sea Bass, Scup, Conch/Whelk, Shrimp, Hagfish, and Jonah Crab (trap/pot fisheries)[3]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • Buoy line weak link strength of 1,500 lbs for fisheries in Offshore lobster waters and Great South Channel that overlaps LMA 2/3 Overlap and 3 (July 1 to March 31); 600-lb weak links for fisheries in other areas	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2 but requirements are seasonal for South Atlantic (see text)	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008 and early elimination of DAM
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008; effective six months after publication in Cape Cod Bay between January 1 and May 15 and in SAM waters				
	Other	• Fold in under existing ALWTRP regulations (e.g., trawls of four or fewer traps allowed only one buoy line in Northern Nearshore lobster waters, Stellwagen Bank/Jeffrey's Ledge Restricted Area and Federal portions of Cape Cod Bay Restricted Area during May 16 to December 31) • Define southern boundary using definitions discussed under Southern Nearshore Lobster Waters and Offshore Lobster Waters • Apply all requirements to currently unregulated portion of Lobster Management Area 6 that is not included in exempted waters • SAM/DAM eliminated in 2008				
Red Crab (trap/pot)[3]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • Buoy line weak link breaking strength of 2,000 lbs for operations in offshore lobster waters	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2 but requirements are seasonal for South Atlantic (see text)	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008 and early elimination of DAM
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
	Other	• Fold in under existing ALWTRP regulations • Define southern boundary using definitions discussed under Southern Nearshore Lobster Waters and Offshore Lobster Waters • Apply all requirements to currently unregulated portion of Lobster Management Area 6 that is not included in exempted waters • SAM/DAM eliminated in 2008				

Exhibit 11-1
PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6
(Requirements in Addition to Current ALWTRP Requirements) [1]

Fishery/Region	Component	Alternative 2	Alternative 3 (Preferred)	Alternative 4	Alternative 5	Alternative 6 (Preferred)
Gillnet – Northeast, Anchored[4]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • Increase number of 1,100-lb weak links per panel from one to five or more, depending on net size,* year-round	= Alt. 2 (but requirements are seasonal south of 40°N)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
	Other	• SAM/DAM eliminated in 2008 • All anchored gillnets must be anchored with the holding power of at least 22-lb Danforth-style anchor at each end of net string • Fold in Northeast anchored float gillnet fishery under existing ALWTRP regulations				
Gillnet – Northeast, Driftnet[5]	Weak links	• One 1,100-lb weak link per panel when fishing tended gear at night	= Alt. 2 (but requirements are seasonal south of 40°N)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008
	General	• Fold in and regulate same as Mid-Atlantic driftnet • Seasonal closures in Cape Cod Bay (Jan. 1 to May 15) and Great South Channel (April 1-June 30)				
Gillnet – Mid-Atlantic, Anchored[6]	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • All nets must return to port with the vessel *or* contain five or more (rather than one) 1,100-lb. weak links per net panel, depending on size* (and be anchored at each end of net string with an anchor having the holding power of a 22-lb Danforth-style anchor, as previously required)	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM until 2008 and early elimination of DAM
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
	Other	• Time period for all requirements expanded to year-round (vs current period of Dec. 1 to March 31) • Include gillnets that are weighted to bottom but do not have an anchor on either end and gillnets that are anchored at each end but not weighted to the bottom • DAM eliminated in 2008 • Waters between 72°30'W and EEZ that are south of VA/NC border and north of SC/GA border folded into Mid-Atlantic anchored gillnet regulations				
Gillnet – Mid-Atlantic, Driftnet[6]	Weak links	• One 1,100-lb weak link per panel when fishing tended gear at night	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3
	General	• Time period for all requirements expanded to year-round (vs current period of Dec. 1 to March 31) • Waters between 72°30'W and EEZ that are south of VA/NC border and north of SC/GA border folded into Mid-Atlantic drift gillnet regulations				
Shark Gillnet – Southeast[7]	General	• Extend 80°00' W longitude boundary and associated requirements to EEZ • Replace current time period (November 15 to March 31) as follows: • From SC/GA border to 29°00'N: Restrictions apply from November 15 to April 15 • From 29°N to 26°46.5'N: Restrictions apply from December 1 to March 31 (keep 27°51'N as southern line of "Restricted Area" during this time period) • Strikenet gear in Southeast U.S. Restricted Area must be removed immediately if right, humpback, or fin whale moves within 3 nautical miles (year-round) • Require use of vessel monitoring system in lieu of 100% observer coverage	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2 but requirements are seasonal (see text)	Expanded SAM (see text)	= Alt. 3

Exhibit 11-1
PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6
(Requirements in Addition to Current ALWTRP Requirements) [1]

Fishery/Region	Component	Alternative 2	Alternative 3 (Preferred)	Alternative 4	Alternative 5	Alternative 6 (Preferred)
Coastal Gillnet – Southeast[8]	General	• Extend 80º00' W longitude boundary and associated requirements to EEZ • Implement gillnet restrictions (similar to Mid-Atlantic anchored gillnet fisheries) between SC/GA border and the NC/SC border • Replace current area/time management measures as follows: • From SC/GA border to 29º00'N: Restrictions apply from November 15 to April 15 • From 29º00'N to 27 º51'N: Restrictions apply from December 1 to March 31 • Require gear modification similar to Mid-Atlantic gillnets that are weighted to bottom but do not have anchor at either end (e.g., weak links in net panels and on buoys; year-round)	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2 but requirements are seasonal (see text)	Meet existing requirements for Mid-Atlantic gillnets	= Alt. 3
	Weak links	• Weak links on all flotation devices and/or weighted devices attached to the buoy line • All nets must return to port with the vessel *or* contain five or more (rather than one) 1,100-lb. weak links per net panel, depending on size* (and be anchored at each end of net string with an anchor having the holding power of a 22-lb Danforth-style anchor, as previously required)				
	Groundline	• Sinking and/or neutrally buoyant groundline year-round by 2008				
All Fisheries	Exempted Areas	• Areas landward of 72 COLREGS line, with exceptions for Boston Harbor, Gardiners Bay (NY), and portions of the Maine coast • No requirement for sinking and/or neutrally buoyant groundline in waters greater than 280 fathoms	→	→	→	→
	Gear Marking	• Remove current ALWTRP gear marking scheme (except net panel marking for shark gillnet gear) • Mark surface buoys with vessel or permit number • Mark buoy lines with one 4-inch mark every 10 fathoms or one 4-inch mark in the center of buoy lines 10 fathoms or less (shark vessels with buoy lines < 4 feet are exempt)	→	→	→	→

Notes:

[1] See Section 1.2.1 for a description of the current ALWTRP requirements. Note that Alternative One is the No Action Alternative.

[2] Northeast/Mid-Atlantic American lobster trap/pot fishery in the 2003 List of Fisheries.

[3] Atlantic mixed species trap/pot fishery in the 2003 List of Fisheries. The trap/pot fisheries affected by this action could include other species (e.g., blue crab), although these species are caught primarily in exempt waters.

[4] Northeast sink gillnet fishery in the 2003 List of Fisheries

[5] Northeast drift gillnet fishery in the 2003 List of Fisheries

[6] Mid-Atlantic coastal gillnet fishery in the 2003 List of Fisheries

[7] Southeastern U.S. Atlantic shark gillnet fishery in the 2003 List of Fisheries

[8] Southeast Atlantic gillnet fishery in the 2003 List of Fisheries

→ Requirement applies across all Alternatives

* The regulatory text will clarify that the placement of net panel weak links will be as follows: For all variation in panel size the following weak link requirements would apply: 1) weak links must be placed in the center of each of the up and down lines at both ends of each net panel; and 2) one floatline weak link must be placed as close as possible to each end of the net panel just before the floatline meets the up and down line. Also, for net panels of 50 fathoms or less in length, one floatline weak link must be placed at the center of the net panel, and for net panels greater than 50 fathoms, weak links must be placed continuously along the floatline separated by a maximum distance of 25 fathoms.

- **Alternative 6 (Preferred)**: Alternative 6 would combine elements of Alternatives 3 and 5. Buoy line weak link requirements and broad-based gear requirements (net panel weak links, sinking and/or neutrally buoyant groundline, anchoring, gear marking, etc.) would be introduced on the same schedule and with the same seasonal and geographic provisions as described under Alternative 3; however, DAM requirements would be eliminated six months after publication of the rule (rather than in 2008), and the expanded SAM zone and SAM regulations described in Alternative 5 would apply from six months after publication until 2008, when the SAM zone would be eliminated and all groundline associated with trap/pot and anchored gillnet gear would be required to be sinking and/or neutrally buoyant line.

In addition to the alternatives summarized above, NMFS considered a number of other approaches. In the scoping efforts conducted for this rulemaking, stakeholders recommended a variety of approaches for reducing entanglement risk to large whales. Scoping discussions included the meeting of the full Take Reduction Team in April 2003 and subsequent ALWTRT subgroup meetings, as well as a series of public meetings held at key locations on the Atlantic coast. While NMFS solicited and considered all input from stakeholders, a number of approaches were rejected in the formulation of final regulatory alternatives. Chapter 3 and Appendix 3-A summarize the comments received at the scoping meetings and briefly explain why NMFS chose not to integrate a particular suggestion into the regulatory alternatives under consideration.

11.2.3 Preferred Alternatives

Integration of the biological, economic, and social impact findings of an environmental impact analysis allows a meaningful comparison of the regulatory alternatives. Integrating these findings typically involves formulation of measures that characterize the benefits derived relative to the costs (or other negative effects) incurred. However, in the case of the ALWTRP modifications, development of a unifying cost-benefit analysis is complicated by two factors:

- First, the costs and benefits are characterized using diverse metrics (e.g., dollars, increased use of low-risk gear, numbers of heavily affected vessels) that cannot be readily reduced to a single measure. In many cases, costs or benefits are described only in qualitative terms, or are characterized with imperfect indicators (e.g., comparative measures of risk reduction potential).

- Second, several of the regulatory alternatives – Alternatives 2, 3, 4, and 6 – have very similar implications. Because the impact estimates are subject to uncertainty, the minor variations that exist between these alternatives do not allow easy differentiation.

Differentiating among the alternatives therefore requires careful, critical consideration of the cost and benefit estimates developed. Because it would require year-round use of low-risk gear along the entire Atlantic coast, Alternative 2 clearly is the most conservative, risk-averse approach to the protection of endangered whales. However, the seasonal exemptions provided under Alternatives 3, 4, and 6 are premised on the movement of whales. Therefore, the residual potential for entanglement of whales in Mid-Atlantic or South Atlantic waters during summer months is minor; i.e., year-round requirements offer little marginal risk reduction benefit.

Furthermore, close examination of the compliance cost estimates suggests that the costs associated with the seasonal implementation of gear conversion requirements (under Alternatives 3, 4, and 6) may be over-estimated. The analysis posits that fishermen will convert all of their gear even if they are likely to fish only a portion of their trips when the requirements would apply, a very conservative assumption. According to comments provided by fishermen during the scoping process, many fishermen in the mid- and South Atlantic use separate sets of gear to target different species at different times of year. If conversion of only winter gear is required, compliance costs will be less than those estimated. In addition, some of the fishermen in the Mid-Atlantic and South Atlantic areas may choose to confine their fishing effort to months when the requirements are not in effect, avoiding the regulation completely. Such behavior would reduce the cost of complying with Alternatives 3, 4, and 6 without increasing risk to whales.

With the exception of Alternative 1 (No Action), Alternative 5 is the only regulatory alternative that differs significantly from the others. The impacts associated with Alternative 5 would be significantly less than those associated with Alternatives 2, 3, 4, or 6, primarily because Alternative 5 would not impose as broad a set of gear modification requirements. In particular:

- Alternative 5 would not require vessels fishing outside Cape Cod Bay (January 1 to May 15) or the Seasonal Area Management zone (March 1 to July 1) to convert their groundline to sinking and/or neutrally buoyant line. In contrast, Alternatives 2, 3, 4, and 6 would require most vessels fishing in ALWTRP-regulated waters to convert to sinking and/or neutrally buoyant groundline. Under Alternative 5, the total groundline converted to non-floating line would be approximately one percent of the total groundline converted under the other alternatives.

- Alternative 5 would not require anchored gillnet vessels fishing outside the SAM zone to increase the number of weak links per net panel from one to five or more, depending on panel size. In addition, Alternative 5 would limit the geographic scope of requirements that anchored gillnet vessels secure their nets at each end with an anchor having the holding power (at minimum) of a 22-pound Danforth-style anchor; this standard would only apply to gear subject to SAM requirements, and on a seasonal basis (December 1 through March 31) to gear in Mid-Atlantic waters west of 72°30' W and north of 33°51' N when the gear does not return to port with the vessel. Under Alternative 5, the total number of net panels with five weak or more links installed and anchors installed would be

approximately two and one percent, respectively, of the total number installed under the other alternatives.

As a result of these differences, the benefits of Alternative 5 for whale survival are likely to be significantly lower than the benefits associated with Alternatives 2, 3, 4, and 6.

Based on consideration of the relative costs and benefits of the alternatives, NMFS has selected Alternatives 3 and 6 as its preferred alternatives, with the intent of identifying only one alternative in the FEIS. These alternatives offer the flexibility of seasonal restrictions for both the mid- and South Atlantic regions, potentially allowing fishermen to pursue lower-cost compliance strategies. The risk-reduction tradeoff is minimal, given that entanglement risk in the Mid- and South Atlantic is low in the summer months (due to whale migratory patterns). Alternative 6 offers the added protection of temporarily expanding the SAM zone; while the SAM requirements would eventually be eliminated, they would remain in effect until the broad-based gear modifications are fully implemented in 2008.

11.3 SMALL ENTITIES AFFECTED

The Small Business Administration (SBA) size standards define whether a business entity is small and, thus, eligible for Government programs and preferences reserved for "small business" concerns. Size standards have been established for all for-profit economic activities or industries in the North American Industry Classification System (NAICS). The SBA defines a small business in the commercial fishing sector as a firm with receipts (gross revenues) of up to $3.5 million. Processing facilities (e.g., canning, curing, freezing) are considered small businesses if they employ 500 or fewer individuals. For fish and seafood wholesalers, a small business is defined as one that employees 100 or fewer employees. As such, virtually all fishing and most wholesale and processing operations in the eastern U.S. are small businesses.

11.3.1 Fishing Operations

The ALWTRP governs fishing operations that set fishing gear in ways that place fishing line (e.g., buoy lines, groundlines) in the water column, thereby creating the potential for whale entanglements. The key fisheries include the American lobster trap/pot fishery; other trap/pot fisheries such as red crab and Jonah crab; and gillnetting operations. A detailed description of each of the fisheries can be found in the Affected Environment section of the EIS.

Exhibit 11-2 summarizes the number of vessels in each of the affected fisheries. This table provides estimates of vessels that would be affected under Alternative 2, since it affects the greatest number of vessels. As shown, based on the number of affected vessels, the Northern Inshore lobster trap/pot fishery is the largest, followed by the Northern Nearshore lobster trap/pot fishery and the Mid-Atlantic anchored gillnet fishery. The majority of affected vessels fall within Class II, 29 to 40 feet in length. The analysis derives these figures based upon commercial fishing activity information collected from and maintained by NMFS and state

fishery management agencies.[8] Under each of the alternatives considered in this analysis, vessels that operate within most sheltered bays and other inshore waters would be exempt from regulatory requirements (see Section 3.1.2 for a description of the exempted waters under the proposed requirements). To exclude vessels that operate primarily within exempted waters, the analysis applies spatial analysis of information on fishing activity and the location of exempted waters. The analysis also excludes vessels that would be minimally affected by changes to ALWTRP regulations. For example, some fishermen occasionally fish a few traps/pots to catch species used for bait in their primary fishing activity. The analysis assumes that vessels fishing less than four trips using gear subject to ALWTRP requirements would incur only minimal compliance costs; these vessels are excluded from the analysis. Chapter 6 describes the data sources and methodology in greater detail.

[8] NMFS data applied in the analysis include the Northeast Vessel Trip Report (VTR) system, Southeast Logbook program, and Northeast Permit Database. The VTR and Logbook data provide information for each reported commercial fishing trip, including gear the vessel employed, the area(s) in which it fished, the port at which its catch was landed, and landings by species. The analysis uses the Permit Database for information on the number of fishermen who hold only a Federal lobster permit and thus are not required to submit vessel trip reports. For the analysis of other trap/pot and gillnet vessels, state fishery management agencies provided information on vessels that hold permits to fish solely in state waters (and which are therefore not required to submit VTR or logbook reports). For the analysis of lobster trap/pot vessels, trap tag data were used to estimate the number of active vessels that are permitted by the states.

Exhibit 11-2

NUMBER OF FISHING OPERATIONS POTENTIALLY AFFECTED BY CHANGES IN ALWTRP REQUIREMENTS [1,2]

Fishery/Location	Size Class [3] I	II	III	IV	Total
Lobster Trap/Pot					
Northern Inshore Waters	245	1,996	513	0	2,753
Northern Nearshore Waters	39	419	186	9	653
Offshore Waters	8	52	43	65	168
Southern Nearshore Waters	5	40	62	4	111
Lobster Trap/Pot Total	297	2,506	804	78	3,686
Other Trap/Pot					
Northern Inshore Waters	57	136	29	8	231
Northern Nearshore Waters	2	13	3	2	20
Offshore Waters	2	5	7	8	21
Southern Nearshore Waters	16	61	64	6	146
Other Trap/Pot Total	76	215	103	23	418
Gillnet					
Mid-Atlantic Anchored Gillnet	22	303	257	35	616
Mid-Atlantic Driftnet	0	50	29	0	79
Northeast Anchored Gillnet	8	131	166	31	336
Southeast Gillnet*	6	5	1	1	13
Gillnet Total	35	489	452	67	1,044
ALL FISHERIES	408	3,210	1,359	168	5,148

Notes:

[1] Some vessels participate in multiple fisheries. Each set of gear that is subject to ALWTRP requirements is treated independently in the count of affected operations. Consequently, vessels that participate in both the gillnet and lobster trap/pot fisheries would be counted twice. Similarly, within the other trap/pot fishery, vessels that maintain separate gear to target different species would be counted more than once.

[2] Totals may not sum due to rounding.

[3] The definition of size classes applied in the analysis are:

I = vessels less than 29 feet in length;
II = vessels between 29 and 40 feet in length;
III = vessels between 41 and 50 feet in length; and
IV = vessels greater than 50 feet in length.

* Southeastern U.S. Atlantic shark gillnet vessels are not included in this estimate (nor in the analysis as a whole) as it was concluded that these vessels would not incur significant compliance costs.

The analysis estimates that approximately 5,100 commercial fishing vessels would be affected by the ALWTRP modifications. Nearly 3,700 of these vessels participate in the lobster trap/pot fishery, while another 1,000 are gillnet vessels.

11.3.2 Other Small Entities Affected

In addition to fishing operations, the ALWTRP requirements could potentially affect seafood dealers and processors. Seafood dealers include wholesale businesses that purchase fish at the dock and distribute it to processors and retailers. Because the ALWTRP regulations affect fisheries that land a broad set of species, processing facilities potentially affected are diverse, and include operations that fillet, freeze, package, and otherwise prepare seafood. Effects on dealers and processors would be significant to the extent that compliance with the ALWTRP influences the quantity of lobster and fish landed (see below).

Exhibit 11-3 summarizes the number of dealers and processors potentially affected by the proposed changes in ALWTRP requirements. The analysis estimates the number of dealers based on data from NMFS's Dealer Database as well as NMFS's database on federally permitted seafood processing facilities. The number of dealers is derived by identifying all 2002 landings caught with gear potentially subject to ALWTRP regulations, then calculating the number of unique dealer operations purchasing this catch. Because these include only federally permitted dealers and because seafood dealers are often small, informal operations, the analysis likely understates the total number of affected seafood dealers. The number of processors is calculated by identifying the set of processing facilities that handle any of the species caught in ALWTRP-regulated gear. As shown, the analysis suggests that 292 dealers and 135 processors could be affected by the ALWTRP modifications.

In addition to dealers and processors, revisions to ALWTRP requirements could potentially affect other small entities in the regional economy (to the extent that landings are reduced). These include small seafood retailers, fishing gear manufacturers and suppliers, and marina operators. Because data are not readily available on these sectors, the analysis does not examine them in detail.

Exhibit 11-3

NUMBER OF DEALERS AND PROCESSING OPERATIONS POTENTIALLY AFFECTED BY CHANGES IN ALWTRP REQUIREMENTS

State	Dealers	Processors
Maine	89	29
New Hampshire	6	2
Massachusetts	54	42
Rhode Island	32	13
Connecticut	1	4
New York	34	4
New Jersey	25	5
Pennsylvania	2	2
Delaware	1	0
Maryland	3	4
Virginia	9	6
North Carolina	19 [1]	9
South Carolina	7 [1]	1
Georgia	0 [1]	5
Florida	10 [1]	9
TOTAL	**292**	**135**

Note:

[1] For North Carolina, South Carolina, Georgia, and Florida, information on the species of fish and shellfish that dealers purchased is unavailable. In the absence of this information, the number of operations that would be affected by changes in ALWTRP requirements is estimated by multiplying the total number of dealers in each state by the proportion of dealers in the remaining states that purchased species targeted by the affected ALWTRP fisheries (37 percent).

11.4 IMPACTS OF REGULATORY ALTERNATIVES ON SMALL ENTITIES

To further examine the potential for socioeconomic impacts from revised ALWTRP requirements, this analysis considers the economic burden placed on different classes of vessels. Placing vessel compliance costs in the context of typical ex-vessel revenues helps determine whether the costs will be significant enough to cause behavioral changes (e.g., vessel retirement) on the part of vessel operators.

11.4.1 Vessel Distribution

The cost/revenue comparison is organized around each major vessel classification and the sizes of vessels operating in those classifications. The analysis begins with the location-based vessel classifications used in the economic impact analysis (e.g., offshore, northern nearshore, etc.). These groups are further subdivided into vessel size classes. For example, the Northern Nearshore lobster trap/pot fishery is divided into four classes of vessels: Class I (vessels less than 28 feet in length), Class II (29 to 40 foot vessels), Class III (41 to 50 foot vessels), and Class IV (vessels greater than 50 feet in length). The analysis compares average annual compliance costs for each lobster trap/pot vessel segment to the average annual revenues for vessels in that segment. The cost/revenue comparison for other trap/pot and gillnet vessels is organized in the same fashion.[9]

11.4.2 Vessel Revenue

Estimates of average annual revenue for each fishery segment are derived from ex-vessel revenue information obtained from NMFS' 2002 Dealer Database. First, ex-vessel revenue is calculated for each potentially affected vessel the dealer data identify.[10] The analysis then uses individual vessel revenue to derive average annual revenue per fishery segment. To do so, the hull ID from the landings databases is matched with the hull ID in the permit database to identify the length of each vessel and its home port. Then, annual average revenue for each vessel segment is calculated, based on the fishery (lobster trap/pot, other trap/pot, gillnet), general location (northern, Mid-Atlantic, or southeast), and size class. For instance, the analysis identifies the average annual revenue earned by a Class II lobster trap/pot vessel operating in the Northeast.

[9] The VTR database provides size class data for federally permitted vessels. For vessels that hold only state permits, the analysis incorporates size data from Maine, Massachusetts, and North Carolina. To develop a distribution of vessels by size for other states, the analysis applies data on lobster trap/pot vessels from Maine, other trap/pot vessels from Massachusetts, and gillnet vessels from Massachusetts and North Carolina. Using state data is preferable to using VTR data since federally permitted vessels tend to be larger than those holding only state permits.

[10] Seafood dealers that limit purchase and sales to lobster are not required to report landings to the Dealer Database. As a result, the analysis would not include information for lobster trap/pot vessels that sell their catch to such "lobster-only" dealers or posses their own dealer permit and sell only lobster. The direction and magnitude of the bias associated with this uncertainty, however, is not known.

11.4.3 Vessel Compliance Costs

To allow comparison to average vessel revenues, the analysis incorporates the vessel compliance cost estimates developed for the economic impact assessment. Average compliance costs are estimated for each fishery segment under each regulatory alternative. For example, the analysis identifies annual compliance costs for a Northern Nearshore lobster trap/pot vessel under each alternative. The discussion of the economic impact assessment explains the method for deriving these costs.

11.4.4 Comparison of Vessel Compliance Costs to Ex-Vessel Revenues

To identify potentially hard-hit sectors of the commercial fishing industry, the analysis compares vessel compliance costs to average vessel revenues. Exhibits 11-4 through 11-6 present the results. There is no clearly defined threshold at which annual costs represent a large enough percent of annual revenues that a vessel operator would cease fishing. For purposes of analysis, however, the exhibits highlight two impact categories:

- **Heavily-Affected Vessels**: Vessel segments for which estimated compliance costs exceed 15 percent of average annual revenues.

- **At-Risk Vessels**: Vessel segments for which estimated compliance costs are between 5 and 15 percent of average annual revenues.

The tables focus on regulatory Alternative 2, since it is the limiting alternative, i.e., it affects the greatest number of vessels and imposes the greatest costs relative to the other alternatives.

The analysis identifies 10 vessel segments that can be considered heavily affected, i.e., for which compliance costs may exceed 15 percent of annual revenues. All of these segments are composed of smaller (Class I or Class II) vessels, which typically have a smaller revenue base with which to absorb such costs.[11] Six of the segments represent lobster trap/pot vessels, indicating that the smallest vessels in this fishery may have difficulty complying with new

[11] As explained in Chapter 6, the analysis of vessel compliance costs is based upon 103 model vessels: 28 representing lobster trap/pot vessels, 55 representing other trap/pot vessels, and 20 representing gillnet vessels. Each of these models is designed to be representative of a group of vessels that is likely to face similar compliance costs (i.e., vessels that face similar regulatory requirements and use similar configurations of gear). This is not to say that all vessels represented by a particular model would in practice face identical compliance costs; clearly, variation in operating practices, vessel size, and the scale of operations within a particular vessel category will lead to variation in compliance costs. The scope of the analysis and lack of the necessary data, however, prohibit analysis of compliance costs at a higher level of specificity.

The limitations of the cost analysis are potentially problematic in comparing estimated compliance costs to revenue data that are available at a higher degree of detail. In some instances, for example, data on vessel revenues are available by vessel size class within a particular group (e.g., Northern Nearshore lobster vessels), while estimates of compliance costs are available only for the group as a whole. As a result, the comparison of annual compliance costs to annual revenues may suggest a more severe impact on small vessels, which tend to have a lower revenue base, than would actually be the case. This potential bias should be recognized in interpreting the findings of this analysis.

ALWTRP requirements. The discussion below analyzes the heavily affected fishing segments in greater detail.

Numerous other vessels (approximately 2,600) fall in the at-risk vessel category. As shown, most of these are smaller vessels in the various fisheries. The at-risk vessels are dominated by Class II lobster trap/pot vessels; of these, the most affected subsets are vessels in Maine, which are estimated to have greater gear loss costs. A variety of other vessels fall in the at-risk range, including Northern Nearshore lobster trap/pot vessels, several categories of other trap/pot vessels (e.g., black sea bass, hagfish, red crab), and Class I gillnet vessels in the Northeast and Mid-Atlantic.

Exhibit 11-4

COMPARISON OF VESSEL COMPLIANCE COSTS AND REVENUES: LOBSTER TRAP/POT

Location	Vessel Size Class	Number of Vessels Affected[1]	Lower Bound Annual Compliance Costs[2]	Upper Bound Annual Compliance Costs[2]	Average Annual Revenue	Lower Bound Cost as a Percent of Revenue	Upper Bound Cost as a Percent of Revenue
Heavily Affected Vessels							
Offshore	I	8	$ 10,969	$ 10,969	$ 19,746	55.55%	55.55%
LMA 6	I	2	$ 4,354	$ 4,354	$ 8,456	51.49%	51.49%
Offshore	II	52	$ (6,823)	$ 10,969	$ 31,212	-21.86%	35.15%
Southern Nearshore	I	4	$ 2,608	$ 2,608	$ 8,456	30.85%	30.85%
Northern State Waters	I	245	$ 44	$ 4,131	$ 19,746	0.22%	20.92%
LMA 6	II	4	$ 4,354	$ 4,354	$ 26,366	16.52%	16.52%
At-Risk Vessels							
LMA 6	III	5	$ 4,354	$ 4,354	$ 29,439	14.79%	14.79%
Northern State Waters	II	1,996	$ 44	$ 4,131	$ 31,212	0.14%	13.24%
Northern Nearshore	I	39	$ (1,549)	$ 2,608	$ 19,746	-7.84%	13.21%
Offshore	III	43	$ 10,969	$ 10,969	$ 99,580	11.02%	11.02%
Southern Nearshore	II	37	$ 2,608	$ 2,608	$ 26,366	9.89%	9.89%
Southern Nearshore	III	57	$ 2,608	$ 2,608	$ 29,439	8.86%	8.86%
Northern Nearshore	II	419	$ (1,549)	$ 2,608	$ 31,212	-4.96%	8.36%
Other Vessels							
Northern State Waters	III	513	$ 44	$ 4,131	$ 99,580	0.04%	4.15%
Northern Nearshore	III	186	$ (1,549)	$ 2,608	$ 99,580	-1.56%	2.62%
Offshore	IV	65	$ (6,823)	$ 10,969	$ 449,129	-1.52%	2.44%
Southern Nearshore	IV	4	$ 2,608	$ 2,608	$ 251,544	1.04%	1.04%
Northern Nearshore	IV	9	$ 2,608	$ 2,608	$ 449,129	0.58%	0.58%

Notes:

[1] Number of affected vessels based on methods discussed in economic impact analysis.

[2] Range reflects different compliance costs for subgroups of vessels in each category.

Exhibit 11-5

COMPARISON OF VESSEL COMPLIANCE COSTS AND REVENUES: OTHER TRAP/POT

Location	OTP Group	Vessel Size Class	Number of Vessels Affected[1]	Lower Bound Annual Compliance Costs[2]	Upper Bound Annual Compliance Costs[2]	Average Annual Revenue	Lower Bound Cost as a Percent of Revenue	Upper Bound Cost as a Percent of Revenue
Heavily Affected Vessels								
Mid-Atlantic	Black Sea Bass Pot	I	7	$ 265	$ 4,510	$ 22,688	2.91%	41.01%
Mid-Atlantic	Black Sea Bass Pot	II	18	$ 3,734	$ 4,510	$ 22,688	16.46%	19.88%
Mid-Atlantic	Other	I	2	$ 1,603	$ 1,603	$ 9,106	17.60%	17.60%
Northern	Hagfish Pot	II	1	$ 6,367	$ 6,367	$ 37,203	17.11%	17.11%
At-Risk Vessels								
Mid-Atlantic	Black Sea Bass Pot	III	18	$ 265	$ 4,510	$ 43,978	0.60%	10.25%
Northern	Hagfish Pot	III	1	$ 6,367	$ 6,367	$ 67,054	9.49%	9.49%
Mid-Atlantic	Other	II	1	$ 1,603	$ 1,945	$ 22,688	7.07%	8.57%
Mid-Atlantic	Conch/Whelk Pot	I	2	$ 774	$ 774	$ 9,106	8.50%	8.50%
Northern	Red Crab Pot	IV	3	$ 152	$ 24,973	$ 393,095	0.04%	6.35%
Other Vessels								
Mid-Atlantic	Other	III	2	$ 426	$ 1,945	$ 43,978	0.97%	4.42%
Northern	Conch/Whelk Pot	II	10	$ 748	$ 979	$ 37,203	2.01%	3.53%
Mid-Atlantic	Conch/Whelk Pot	II	16	$ 728	$ 774	$ 22,688	3.21%	3.41%
Northern	Black Sea Bass Pot	I	12	$ 276	$ 353	$ 18,992	1.46%	3.18%
Mid-Atlantic	Scup Pot	I	1	$ 285	$ 285	$ 9,106	3.13%	3.13%
Northern	Shrimp Pot	I	47	$ 533	$ 590	$ 18,992	2.81%	3.11%
Northern	Hagfish Pot	IV	4	$ 4,188	$ 8,119	$ 393,095	1.07%	2.07%
Northern	Other	II	2	$ 437	$ 567	$ 37,203	1.17%	2.05%
Northern	Conch/Whelk Pot	III	5	$ 748	$ 902	$ 67,054	1.12%	1.82%
Mid-Atlantic	Conch/Whelk Pot	III	25	$ 774	$ 774	$ 43,978	1.76%	1.76%
Northern	Shrimp Pot	II	94	$ 533	$ 627	$ 37,203	1.43%	1.69%
Southern	Black Sea Bass Pot	II	27	$ 280	$ 280	$ 18,691	1.50%	1.50%
Northern	Scup Pot	II	15	$ 287	$ 369	$ 37,203	0.77%	1.34%
Northern	Black Sea Bass Pot	II	30	$ 276	$ 353	$ 37,203	0.74%	1.28%
Southern	Black Sea Bass Pot	I	5	$ 280	$ 280	$ 24,117	1.16%	1.16%
Northern	Other	III	6	$ 437	$ 567	$ 67,054	0.65%	1.06%
Mid-Atlantic	Black Sea Bass Pot	IV	2	$ 3,734	$ 3,734	$ 366,767	1.02%	1.02%
Northern	Shrimp Pot	III	5	$ 590	$ 590	$ 67,054	0.88%	0.88%
Mid-Atlantic	Scup Pot	III	2	$ 300	$ 367	$ 43,978	0.68%	0.83%
Northern	Black Sea Bass Pot	III	17	$ 139	$ 353	$ 67,054	0.21%	0.66%

Exhibit 11-5

COMPARISON OF VESSEL COMPLIANCE COSTS AND REVENUES: OTHER TRAP/POT

Location	OTP Group	Vessel Size Class	Number of Vessels Affected[1]	Lower Bound Annual Compliance Costs[2]	Upper Bound Annual Compliance Costs[2]	Average Annual Revenue	Lower Bound Cost as a Percent of Revenue	Upper Bound Cost as a Percent of Revenue
Northern	Scup Pot	III	5	$ 348	$ 348	$ 67,054	0.52%	0.52%
Mid-Atlantic	Other	IV	2	$ 1,603	$ 1,603	$ 366,767	0.44%	0.44%
Southern	Black Sea Bass Pot	III	17	$ 280	$ 280	$ 96,657	0.29%	0.29%
Mid-Atlantic	Conch/Whelk Pot	IV	2	$ 774	$ 774	$ 366,767	0.21%	0.21%
Northern	Other	IV	4	$ 437	$ 567	$ 393,095	0.11%	0.14%
Northern	Scup Pot	IV	3	$ 287	$ 348	$ 393,095	0.07%	0.09%
Northern	Black Sea Bass Pot	IV	3	$ 289	$ 328	$ 393,095	0.08%	0.08%

Notes:

[1] Number of affected vessels based on methods discussed in economic impact analysis. Segments with zero vessels affected are shown for illustration only.

[2] Range reflects different compliance costs for subgroups of vessels in each category.

Exhibit 11-6

COMPARISON OF VESSEL COMPLIANCE COSTS AND REVENUES: GILLNET

Location	Vessel Size Class	Number of Vessels Affected[1]	Lower Bound Annual Compliance Costs[2]	Upper Bound Annual Compliance Costs[2]	Average Annual Revenue	Lower Bound Cost as a Percent of Revenue	Upper Bound Cost as a Percent of Revenue
Heavily Affected Vessels (None)							
At-Risk Vessels							
Mid-Atlantic	I	22	$ 633	$ 980	$ 6,731	9.40%	14.57%
Northeast	I	8	$ 1,120	$ 1,120	$ 19,359	5.79%	5.79%
Other Vessels							
Mid-Atlantic	II	353	$ 9	$ 980	$ 59,595	0.02%	1.65%
Northeast	II	131	$ 28	$ 1,120	$ 76,618	0.04%	1.46%
Mid-Atlantic	III	285	$ 9	$ 980	$ 111,618	0.01%	0.88%
Northeast	III	166	$ 28	$ 1,120	$ 167,904	0.02%	0.67%
Northeast	IV	31	$ 28	$ 1,120	$ 304,546	0.01%	0.37%
Mid-Atlantic	IV	35	$ 633	$ 980	$ 377,776	0.17%	0.26%
Southeast	III	1	$ 185	$ 185	$ 81,810	0.23%	0.23%
Southeast	II	5	$ 185	$ 185	$ 82,723	0.22%	0.22%
Southeast	IV	1	$ 185	$ 185	$ 119,073	0.16%	0.16%

Notes:
[1] Number of affected vessels based on methods discussed in economic impact analysis.
[2] Range reflects different compliance costs for subgroups of vessels in each category.

11.4.5 Summary of Heavily-Affected Operations

A comparison of annual vessel compliance costs to vessel revenue suggests that a limited subset of vessel operators are likely to face costs significant enough to drive them out of business. Although uncertainties exist in the analysis, the most heavily affected vessels appear to be few in number (relative to the full set of potentially affected vessels) and small in size. Therefore, they employ a relatively small number of fishermen (about two percent of those on all potentially affected vessels) and account for a relatively small share of landings. Heavily affected vessels are defined as those for which annual compliance costs exceed 15 percent of annual revenue; this criterion is highly conservative, and in reality many fishermen would likely adjust to the modified ALWTRP regulations (e.g., fish in exempted waters) rather than leave fishing. These adjustments, combined with the fact that small decreases in landings would likely be made up by other vessels, suggests that impacts on dealers and processors would be minor.

Most of the regulatory alternatives under consideration vary little with respect to their potential social and socioeconomic impacts. The number of vessels considered heavily affected is essentially identical under Alternatives 2, 3 (Preferred), 4, and 6 (Preferred), as is the number of fishermen employed on these vessels. The socioeconomic implications of these alternatives vary little because most of the vessels the analysis identifies as heavily affected are based in the Northeast, where the provisions of Alternatives 2, 3 (Preferred), 4, and 6 (Preferred) do not vary. Thus, for most of the social impacts evaluated, Alternatives 2, 3 (Preferred), 4, and 6 (Preferred) are largely identical. A potential exception is the social impacts of improvements in whale conservation. Because Alternative 2 requires the most geographically widespread changes, it may offer somewhat greater benefits on this dimension; however, the degree to which this is true is not readily discernible from the biological impacts analysis. Analysis of Alternative 5 (the modified SAM) shows very few vessels would face compliance costs that qualify them as heavily affected.

It is important to consider the socioeconomic burden of the ALWTRP in the context of the larger set of regulations faced by ALWTRP fisheries and the overall fishing industry. To the extent that certain communities already may be struggling with the socioeconomic impact of existing regulations, the ALWTRP modifications may add to the burden and have a significant marginal impact. The cumulative effects analysis included in this EIS addresses the potential for such outcomes.

11.5 RULES THAT MAY DUPLICATE, OVERLAP, OR CONFLICT WITH PROPOSED RULE

No duplicative, overlapping, or conflicting Federal rules have been identified.